AMENDMENTS TO THE CLAIMS

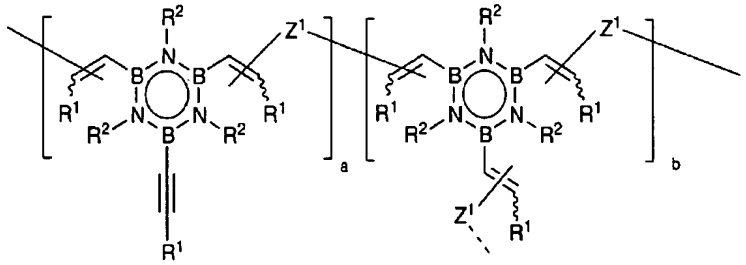
The following listing of claims replaces all prior listings, and all prior versions, of claims in the application.

LISTING OF CLAIMS:

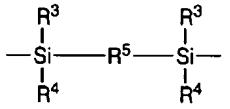
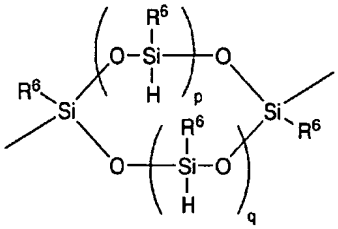
1. (Currently amended) An insulating film consisting essentially of~~comprising~~ a compound having a borazine skeleton in a molecular structure thereof, and having a specific dielectric constant of no greater than 2.6, a Young's modulus of 5 GPa or greater and a leak current of no greater than 1 x 10^{-8} A/cm^2,

wherein the insulating film is formed from a borazine-based resin composition with a metal impurity content of no greater than 30 ppm, and

said compound has a repeating unit represented by the following formula (2):



(2)

Z^1 =  , or 

where

R^1 represents alkyl, aryl, aralkyl or hydrogen,

R^2 represents alkyl, aryl, aralkyl or hydrogen,

R^3 and R^4 represent identical or different monovalent groups selected from among alkyl, aryl, aralkyl and hydrogen,

R^5 represents a substituted or unsubstituted aromatic divalent group, an oxypoly (dimethylsiloxy) group or oxygen,

R^6 represents alkyl, aryl, aralkyl or hydrogen,

a represents a positive integer, b represents 0 or a positive integer, p represents 0 or a positive integer, and q represents 0 or a positive integer.

2. (Currently amended) An insulating film according to claim 1, wherein the insulating film is formed from a borazine-based resin composition with a metal impurity content of no greater than 10~~30~~ ppm.

3. (Previously presented) An electronic part provided with a conductive layer-formed substrate and an interlayer insulating film formed on the substrate, wherein the interlayer insulating film is composed of an insulating film according to claim 1.

4. (Original) A composite insulating film comprising:

a first insulating film comprising a siloxane resin, and

a second insulating film formed on the first insulating film and comprising a compound having a borazine skeleton in a molecular structure thereof.

5. (Original) A composite insulating film according to claim 4,

wherein the first insulating film is composed of a siloxane resin composition comprising a siloxane resin obtained by hydrolytic condensation of a compound represented by the following formula (1):

$X^1_nSiX^2_{4-n}$ (1)

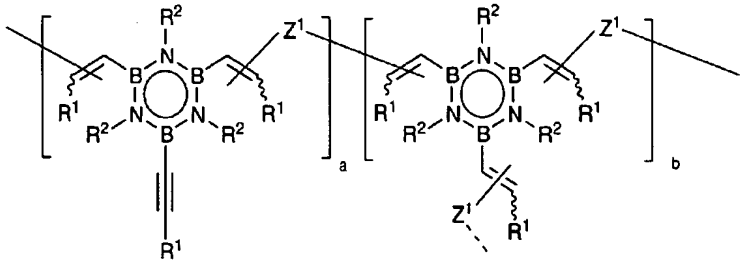
where

X^1 represents an H atom, an F atom, a group containing a B atom, N atom, Al atom, P atom, Si atom, Ge atom or Ti atom, or an organic group of 1 to 20 carbons,

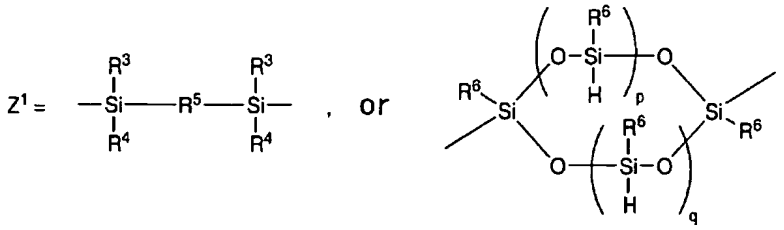
X^2 represents a hydrolyzable group, and

n represents an integer of 0-2, with the proviso that when n is 2, each X^1 may be the same or different, and when n is 0-2, each X^2 may be the same or different.

6. (Previously presented) A composite insulating film according to claim 4, wherein the compound having a borazine skeleton in a molecular structure thereof has a repeating unit represented by the following formula (2):



(2)



where

R^1 represents alkyl, aryl, aralkyl or hydrogen,

R^2 represents alkyl, aryl, aralkyl or hydrogen,

R^3 and R^4 represent identical or different monovalent groups selected from among alkyl, aryl, aralkyl and hydrogen,

R^5 represents a substituted or unsubstituted aromatic divalent group, an oxypoly (dimethylsiloxy) group or oxygen,

R^6 represents alkyl, aryl, aralkyl or hydrogen,

a represents a positive integer, b represents 0 or a positive integer, p represents 0 or a positive integer, and q represents 0 or a positive integer.

7. (Previously presented) An electronic part provided with a composite insulating film according to claim 4,

wherein the composite insulating film is formed on a substrate.

8. (Original) A process for production of a borazine-based resin that is a polymer having a borazine skeleton on a main chain or a side chain thereof,

wherein the process comprises:

a first step of polymerizing a B,B',B"-trialkynylborazine and a hydrosilane in the presence of a solid catalyst, and

a second step of removing the solid catalyst after completing the first step.

9. (Original) A process for production of a borazine-based resin according to claim 8,

wherein the solid catalyst is a supported catalyst comprising a catalyst supported on compound-based carrier.

10. (Currently amended) A process for production of a borazine-based resin that is a polymer having a borazine skeleton on a main chain or a side chain thereof,

wherein the process comprises:

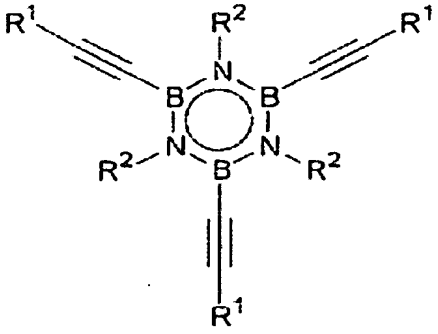
a first step of polymerizing a B,B',B"-trialkynylborazine and a hydrosilane in the presence of a metal catalyst in a polymerization solvent,

a second step of adding to the polymerization system a particulate scavenger which is insoluble in the polymerization system of the first step and adsorbs the metal component from the metal catalyst, after completion of the first step, and

a third step of filtering out the scavenger to which the metal component has been adsorbed after completion of the second step.

11. (Currently amended) A process for production of a borazine-based resin according to claim 8,

wherein the B,B',B"-trialkynylborazine~~B,B',B"-triallcynylborazine~~ is represented by the following formula (3):



(3)

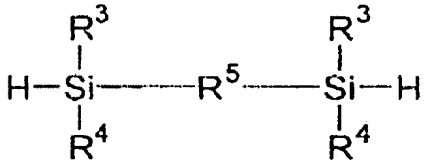
where

R^1 represents alkyl, aryl, aralkyl or hydrogen, and

R^2 represents alkyl, aryl, aralkyl or hydrogen.

12. (Previously presented) A process for production of a borazine-based resin according to claim 8,

wherein the hydrosilane is represented by the following formula (4):



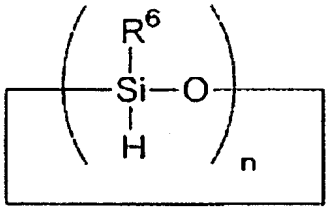
(4)

where

R^3 and R^4 represent identical or different monovalent groups selected from among alkyl, aryl, aralkyl and hydrogen,

R^5 represents a substituted or unsubstituted aromatic divalent group, an oxypoly (dimethylsiloxy) group or oxygen,

or by the following formula (5):



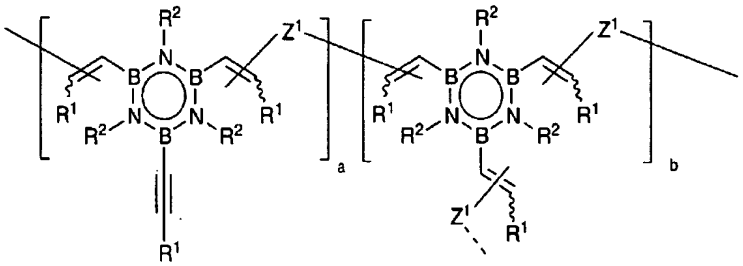
(5)

where R^6 represents alkyl, aryl, aralkyl or hydrogen, and n represents an integer of 2 or greater.

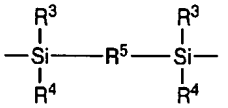
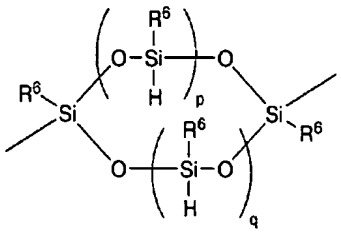
13. (Currently amended) A borazine-based resin composition comprising a polymer with a borazine skeleton on a main chain or a side chain thereof, and a

solvent capable of dissolving the polymer, and having a solid concentration of 0.5 wt% or greater and a metal impurity content of no greater than 30 ppm,

wherein the polymer has a repeating unit represented by the following formula (2):



(2)

$Z^1 =$  , or 

where

R^1 represents alkyl, aryl, aralkyl or hydrogen,

R^2 represents alkyl, aryl, aralkyl or hydrogen,

R^3 and R^4 represent identical or different monovalent groups selected from among alkyl, aryl, aralkyl and hydrogen,

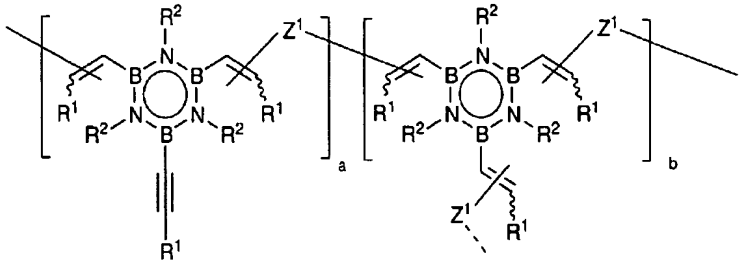
R^5 represents a substituted or unsubstituted aromatic divalent group, an oxypoly (dimethylsiloxy) group or oxygen,

R^6 represents alkyl, aryl, aralkyl or hydrogen,

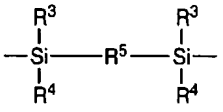
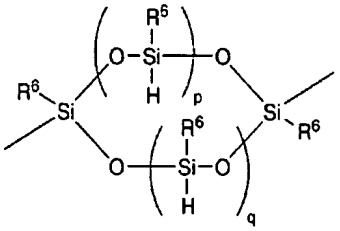
a represents a positive integer, b represents 0 or a positive integer, p represents 0 or a positive integer, and q represents 0 or a positive integer.

14. (Currently amended) A borazine-based resin composition comprising a polymer with a borazine skeleton on a main chain or a side chain thereof, and a solvent capable of dissolving the polymer, and having a solid concentration of 0.5 wt% or greater and a metal impurity content of no greater than 30 ppm,

wherein the polymer has a repeating unit represented by the following formula (2):



(2)

$Z^1 =$  , or 

where

R^1 represents alkyl, aryl, aralkyl or hydrogen,

R^2 represents alkyl, aryl, aralkyl or hydrogen,

R^3 and R^4 represent identical or different monovalent groups selected from among alkyl, aryl, aralkyl and hydrogen,

R^5 represents a substituted or unsubstituted aromatic divalent group, an oxypoly (dimethylsiloxy) group or oxygen,

R^6 represents alkyl, aryl, aralkyl or hydrogen,

a represents a positive integer, b represents 0 or a positive integer, p represents 0 or a positive integer, and q represents 0 or a positive integer, and

wherein the polymer is a borazine-based resin produced by a borazine-based resin production process according to claim 8.

15. (Cancelled).

16. (Previously presented) A method for forming an insulating film on a substrate,

wherein a borazine-based resin composition according to claim 13 is coated onto the substrate to form a coated film, and the coated film is then dried.

17. (Original) An insulating film provided on a substrate, the insulating film being formed by a method for forming an insulating film according to claim 16.

18. (Original) An insulating film according to claim 17,

wherein the insulating film is formed between mutually adjacent conductive layers among a plurality of conductive layers provided on the substrate.

19. (Previously presented) An electronic part comprising an insulating film according to claim 17.

20. (Cancelled).

21. (New) An insulating film according to claim 1,

wherein said compound is produced by a process which comprises:

a first step of polymerizing a B,B',B"-trialkynylborazine and a hydrosilane in the presence of a solid catalyst, and

a second step of removing the solid catalyst after completing the first step.

22. (New) An insulating film according to claim 21, wherein said solid catalyst is a supported catalyst comprising a catalyst supported on compound-based carrier.

23. (New) An insulating film according to claim 22, wherein said second step of removing includes filtering out said catalyst supported on the compound-based carrier from polymer formed in the first step.

24. (New) An insulating film according to claim 1,

wherein said compound is produced by a process which comprises:

a first step of polymerizing a B,B',B"-trialkynylborazine and a hydrosilane in the presence of a metal catalyst in a polymerization solvent,

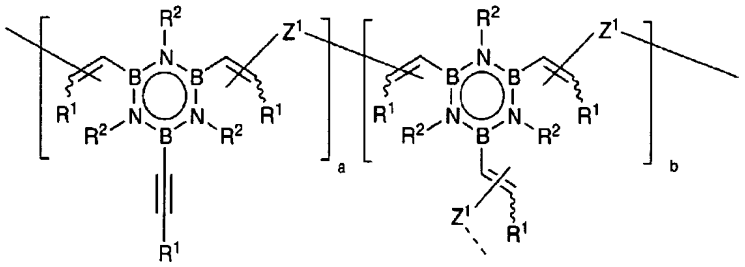
a second step of adding to a polymerization system of the first step a particulate scavenger which is insoluble in the polymerization system of the first step and adsorbs the metal component from the metal catalyst, after completion of the first step, and

a third step of filtering out the scavenger to which the metal component has been adsorbed after completion of the second step.

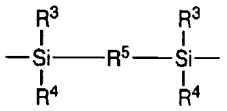
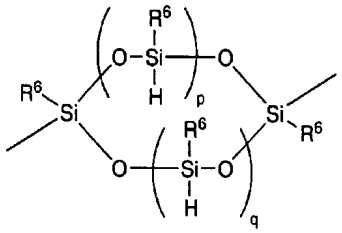
25. (New) An insulating film consisting essentially of a compound having a borazine skeleton in a molecular structure thereof, and having a specific dielectric constant of no greater than 2.6, and a Young's modulus of 5 GPa or greater,

wherein the insulating film is formed from a borazine-based resin composition with a metal impurity content of no greater than 30 ppm, and

said compound has a repeating unit represented by the following formula (2):



(2)

$Z^1 =$  , or 

where

R^1 represents alkyl, aryl, aralkyl or hydrogen,

R^2 represents alkyl, aryl, aralkyl or hydrogen,

R^3 and R^4 represent identical or different monovalent groups selected from among alkyl, aryl, aralkyl and hydrogen,

R^5 represents a substituted or unsubstituted aromatic divalent group, an oxypoly (dimethylsiloxy) group or oxygen,

R^6 represents alkyl, aryl, aralkyl or hydrogen,

a represents a positive integer, b represents 0 or a positive integer, p represents 0 or a positive integer, and q represents 0 or a positive integer.

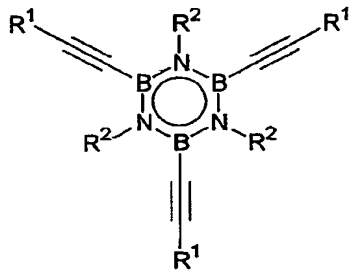
26. (New) Am insulating film according to claim 25,

wherein the insulating film is formed from a borazine-based resin composition with a metal impurity content of no greater than 10 ppm.

27. (New) A borazine-based resin composition comprising a borazine-based resin produced by a borazine-based resin production process according to claim 10.

28. (New) A process for production of a borazine-based resin according to claim 10,

wherein the B,B',B''-trialkynylborazine is represented by the following formula (3):



(3)

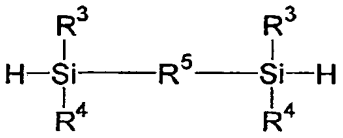
where

R^1 represents alkyl, aryl, aralkyl or hydrogen, and

R^2 represents alkyl, aryl, aralkyl or hydrogen.

29. (New) A process for production of a borazine-based resin according to claim 10,

wherein the hydrosilane is represented by the following formula (4):



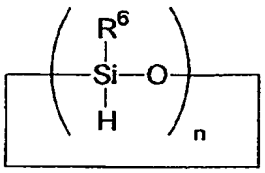
(4)

where

R^3 and R^4 represent identical or different monovalent groups selected from among alkyl, aryl, aralkyl and hydrogen,

R^5 represents a substituted or unsubstituted aromatic divalent group, an oxypoly (dimethylsiloxy) group or oxygen,

or by the following formula (5):



(5)

where R^6 represents alkyl, aryl, aralkyl or hydrogen, and n represents an integer of 2 or greater.